NC/QC/PYZ/2017-18/A2-CA1 Date: 03-07-2017

1. TEST REPORT ON COARSE AGGREGATE:

Sub: Testing of Coarse Aggregate used in Dense Graded Bituminous Macadam.
{Project*: Improvements and Asphalting to roads at Agrahara Layout in Ward No 05.}
Ref.: Material testing/PMC/17-18,
Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.
Name of the Contractor: Mr. Achutha Murthy. K, Bangalore.

TABLE 1.1 ;

SL No.	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)– 1963 (Reaffirmed on 2002) & Requirements as per IS:383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Aggregate Impact Value	**24.03 %**	Not more than 27.00 % for DBM
2.	Combined Flakiness and Elongation index, %	**24.86 %**	Not more than 35.0 %
3.	Water absorption, %	**0.35 %**	Not more than 2.0 %
4.	Specific gravity	**2.43**	-------
5.	Soundness	**5.32 %**	Max. 12 % in Sodium Sulphate

*As furnished by Client.
The results relate only to the samples tested.

KIRAN. R

Page No. 1/1,

For Newzen Consultants Bangalore

Proprietor

NC/QC/PYZ/2017-18/A2-DBM1 Date: 06-07-2017

1.TEST REPORT ON BITUMINOUS MIXES :

(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for DBM mix sample.
{Project*: Improvements and Asphalting to roads at Agrahara Layout in Ward No 05.}

Ref.: Material testing/PMC/17-18,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Contractor: Mr. Achutha Murthy. K, Bangalore.

TEST RESULTS

A. Type of Construction : **Dense Graded Bituminous Macadam.**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **4.53 %**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-10 of MORTH Specfications-2013 DBM (Grading - 2)
37.5	**100**	100
26.5	**96.15**	90-100
19.0	**85.25**	71-95
13.20	**72.80**	56-80
4.75	**49.65**	38-54
2.36	**35.55**	28-42
0.300	**18.05**	7-21
0.075	**6.15**	2-8

*As Furnished by Client.

The Results relate only to the items tested.

Page No. 1/1

KIRAN. R

For Newzen Consultants Bangalore

Proprietor

NC/QC/PYZ/2017-18/A2-DBM2 Date: 07-07-2017

1.TEST REPORT ON BITUMINOUS MIXES :

(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for DBM mix sample.
{Project*: Improvements and Asphalting to roads at Agrahara Layout in Ward No 05.}

Ref.: Material testing/PMC/17-18,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Contractor: Mr. Achutha Murthy. K, Bangalore.

TEST RESULTS

A. Type of Construction : **Dense Graded Bituminous Macadam.**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **4.50 %**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-10 of MORTH Specfications-2013 DBM (Grading - 2)
37.5	**100**	100
26.5	**97.45**	90-100
19.0	**89.15**	71-95
13.20	**72.35**	56-80
4.75	**48.05**	38-54
2.36	**34.25**	28-42
0.300	**17.80**	7-21
0.075	**6.15**	2-8

*As Furnished by Client.

The Results relate only to the items tested.

Asst. Executive Engineer, Project Division, Yelahanka Zone, Bangalore

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KIRAN. R

For Newzen Consultants Bangalore

Proprietor

Page No. 1/1

NC/QC/PYZ/2017-18/A2-DBM3 Date: 08-07-2017

1.TEST REPORT ON BITUMINOUS MIXES :

(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for DBM mix sample.
{Project*: Improvements and Asphalting to roads at Agrahara Layout in Ward No 05.}

Ref.: Material testing/PMC/17-18,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Contractor: Mr. Achutha Murthy. K, Bangalore.

TEST RESULTS

A. Type of Construction : **Dense Graded Bituminous Macadam.**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **4.55 %**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-10 of MORTH Specfications-2013 DBM (Grading - 2)
37.5	**100**	100
26.5	**95.10**	90-100
19.0	**89.75**	71-95
13.20	**72.95**	56-80
4.75	**48.65**	38-54
2.36	**39.55**	28-42
0.300	**15.05**	7-21
0.075	**4.95**	2-8

*As Furnished by Client.

The Results relate only to the items tested.

KERAN. R

For Newzen Consultants Bangalore

Proprietor

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NC/QC/PYZ/2017-18/A2-DBM4 Date: 08-07-2017

1.TEST REPORT ON BITUMINOUS MIXES :

(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for DBM mix sample.
{Project*: Improvements and Asphalting to roads at Agrahara Layout in Ward No 05.}

Ref.: Material testing/PMC/17-18,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Contractor: Mr. Achutha Murthy. K, Bangalore.

TEST RESULTS

A. Type of Construction : **Dense Graded Bituminous Macadam.**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **4.53 %**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-10 of MORTH Specfications-2013 DBM (Grading - 2)
37.5	**100**	100
26.5	**94.45**	90-100
19.0	**88.35**	71-95
13.20	**72.15**	56-80
4.75	**46.60**	38-54
2.36	**37.15**	28-42
0.300	**17.05**	7-21
0.075	**6.85**	2-8

*As Furnished by Client.

The Results relate only to the items tested.

KIRAN. R

For Newzen Consultants Bangalore

Proprietor

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NC/QC/PYZ/2017-18/A2-B2 **Date: 07-07-2017**

1. TEST REPORT ON BITUMEN SAMPLE:

Sub: Testing of Bitumen sample VG-30 Grade.
{Project*: Improvements and Asphalting to roads at Agrahara Layout in Ward No 05.}
Ref.: Material testing/PMC/17-18,
Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.
Name of the Contractor: Mr. Achutha Murthy. K, Bangalore.
Technical Reference: Ministry of Road Transport and Highways, V Revision, 2013 and IS 73: 1992.

TABLE 1.1 ;

SL No	Details	Test Results	Requirements as per I.S 73 –1992 Specifications
1.	Penetration at 25^0 C	**55.0**	Min. 45
2.	Ductility Value at 25^0 C	**105.0 cm**	40
3.	Flash point	**236^0 C**	Minimum 220^0 C
4.	Softening point	**58.5^0 C**	Min. 47

*As furnished by Client.
The results relate only to the samples tested.

KRAN. R

Page No. 1/1,

For Newzen Consultants Bangalore

Proprietor

NC/QC/PYZ/2017-18/A2-C2 Date: 07-07-2017

1. TEST REPORT ON COARSE AGGREGATE:

Sub: Testing of Coarse Aggregate used in Bituminous Concrete.
{Project*: Improvements and Asphalting to roads at Agrahara Layout in Ward No 05.}
Ref.: Material testing/PMC/17-18,
Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.
Name of the Contractor: Mr. Achutha Murthy. K, Bangalore.

TABLE 1.1 ;

Sl. No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)– 1963 (Reaffirmed on 2002) & Requirements as per IS:383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Aggregate Impact Value	**23.59 %**	Not more than 24.00 %
2.	Combined Flakiness and Elongation index, %	**25.23 %**	Not more than 35.0 %
3.	Water absorption, %	**0.33 %**	Not more than 2.0 %
4.	Specific gravity	**2.44**	-------
5.	Soundness	**6.09 %**	Max. 12 % in Sodium Sulphate

*As furnished by Client.
The results relate only to the samples tested.

Executive Engineer Project Division Yelahanka Zone Bangalore

Page No. 1/1,

For Newzen Consultants Bangalore

Proprietor

NC/QC/PYZ/2017-18/A2-BC1 Date: 10-07-2017

1.TEST REPORT ON BITUMINOUS MIXES :

(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for BC mix sample.
{Project*: Improvements and Asphalting to roads at Agrahara Layout in Ward No 05.}

Ref.: Material testing/PMC/17-18,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Contractor: Mr. Achutha Murthy. K, Bangalore.

TEST RESULTS

A. Type of Construction : **Bituminous Concrete**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **5.42 %**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-17 of MORTH Specfications-2013 BC (Grading - 2)
19.0	**100**	100
13.2	**97.45**	90-100
9.5	**82.05**	70-88
4.75	**62.75**	53-71
2.36	**51.65**	42-58
1.18	**41.45**	34-48
0.600	**32.15**	26-38
0.300	**23.80**	18-28
0.150	**16.10**	12-20
0.075	**7.45**	4-10

*As Furnished by Client.

The Results relate only to the items tested.

KIRAN. R

For Newzen Consultants Bangalore

Proprietor

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NC/QC/PYZ/2017-18/A2-BC2 Date: 11-07-2017

LTEST REPORT ON BITUMINOUS MIXES :

(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for BC mix sample.
{Project*: Improvements and Asphalting to roads at Agrahara Layout in Ward No 05.}

Ref.: Material testing/PMC/17-18,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Contractor: Mr. Achutha Murthy. K, Bangalore.

TEST RESULTS

A. Type of Construction : **Bituminous Concrete**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **5.43 %**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-17 of MORTH Specfications-2013 BC (Grading - 2)
19.0	**100**	100
13.2	**95.10**	90-100
9.5	**82.55**	70-88
4.75	**65.70**	53-71
2.36	**51.35**	42-58
1.18	**42.95**	34-48
0.600	**35.55**	26-38
0.300	**24.30**	18-28
0.150	**14.05**	12-20
0.075	**5.85**	4-10

*As Furnished by Client.

The Results relate only to the items tested.

KIRAN. H

For Newzen Consultants Bangalore

Proprietor

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NC/QC/PYZ/2017-18/A2-BC3 Date: 12-07-2017

1.TEST REPORT ON BITUMINOUS MIXES :

(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for BC mix sample.
{Project*: Improvements and Asphalting to roads at Agrahara Layout in Ward No 05.}

Ref.: Material testing/PMC/17-18,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Contractor: Mr. Achutha Murthy. K, Bangalore.

TEST RESULTS

A. Type of Construction : **Bituminous Concrete**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **5.41 %**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-17 of MORTH Specfications-2013 BC (Grading - 2)
19.0	**100**	100
13.2	**94.75**	90-100
9.5	**80.45**	70-88
4.75	**66.35**	53-71
2.36	**54.05**	42-58
1.18	**40.15**	34-48
0.600	**32.65**	26-38
0.300	**18.10**	18-28
0.150	**14.85**	12-20
0.075	**6.65**	4-10

*As Furnished by Client.

The Results relate only to the items tested.

KIRAN. R

For Newzen Consultants Bangalore

Proprietor

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NC/QC/PYZ/2017-18/A2-BC4 Date: 12-07-2017

1.TEST REPORT ON BITUMINOUS MIXES :

(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for BC mix sample.
{Project*: Improvements and Asphalting to roads at Agrahara Layout in Ward No 05.}

Ref.: Material testing/PMC/17-18,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Contractor: Mr. Achutha Murthy. K, Bangalore.

TEST RESULTS

A. Type of Construction : **Bituminous Concrete**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **5.45 %**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-17 of MORTH Specfications-2013 BC (Grading - 2)
19.0	**100**	100
13.2	**98.45**	90-100
9.5	**81.05**	70-88
4.75	**65.25**	53-71
2.36	**53.10**	42-58
1.18	**44.25**	34-48
0.600	**32.55**	26-38
0.300	**24.05**	18-28
0.150	**15.40**	12-20
0.075	**6.10**	4-10

*As Furnished by Client.

The Results relate only to the items tested.

Asst. Executive Engineer Project Division Yelahanka Zone Bangalore

KIRAN. R

For Newzen Consultants Bangalore

Proprietor

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NC/QC/PYZ/2017-18/A2-BC5

Date: 13-07-2017

1.TEST REPORT ON BITUMINOUS MIXES :

(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for BC mix sample.
{Project*: Improvements and Asphalting to roads at Agrahara Layout in Ward No 05.}

Ref.: Material testing/PMC/17-18,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Contractor: Mr. Achutha Murthy. K, Bangalore.

TEST RESULTS

A. Type of Construction : **Bituminous Concrete**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **5.44 %**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-17 of MORTH Specfications-2013 BC (Grading - 2)
19.0	**100**	100
13.2	**96.45**	90-100
9.5	**82.25**	70-88
4.75	**65.00**	53-71
2.36	**52.35**	42-58
1.18	**42.05**	34-48
0.600	**31.55**	26-38
0.300	**24.15**	18-28
0.150	**16.25**	12-20
0.075	**6.95**	4-10

*As Furnished by Client.

The Results relate only to the items tested.

KIRAN. K

For Newzen Consultants Bangalore

Proprietor

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NC/QC/PYZ/2017-18/A2-BC6

Date: 14-07-2017

1.TEST REPORT ON BITUMINOUS MIXES :

(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for BC mix sample.
{Project*: Improvements and Asphalting to roads at Agrahara Layout in Ward No 05.}

Ref.: Material testing/PMC/17-18,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Contractor: Mr. Achutha Murthy. K, Bangalore.

TEST RESULTS

A. Type of Construction : **Bituminous Concrete**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **5.42 %**

2. **Gradation Test**

TABEE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-17 of MORTH Specfications-2013 BC (Grading - 2)
19.0	**100**	100
13.2	**97.25**	90-100
9.5	**80.15**	70-88
4.75	**63.45**	53-71
2.36	**50.05**	42-58
1.18	**42.15**	34-48
0.600	**30.45**	26-38
0.300	**23.10**	18-28
0.150	**15.25**	12-20
0.075	**6.45**	4-10

*As Furnished by Client.

The Results relate only to the items tested.

Asst. Executive Engineer, Project Division, Yelahanka Zone, Bangalore

KIRAN. R

For Newzen Consultants Bangalore

Proprietor

NEWZEN CONSULTANTS BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA, JNANABHARATHI, BANGALORE-560056 CELL NO: +91-8792620221

NC/QC/PYZ/2017-18/A2-BC7 Date: 15-07-2017

1.TEST REPORT ON BITUMINOUS MIXES :

(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for BC mix sample.
{Project*: Improvements and Asphalting to roads at Agrahara Layout in Ward No 05.}

Ref.: Material testing/PMC/17-18,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Contractor: Mr. Achutha Murthy. K, Bangalore.

TEST RESULTS

A. Type of Construction : **Bituminous Concrete**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **5.41 %**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-17 of MORTH Specfications-2013 BC (Grading - 2)
19.0	**100**	100 -
13.2	**96.15**	90-100
9.5	**84.25**	70-88
4.75	**60.65**	53-71
2.36	**49.75**	42-58
1.18	**39.40**	34-48
0.600	**30.55**	26-38
0.300	**25.95**	18-28
0.150	**17.30**	12-20
0.075	**5.45**	4-10

*As Furnished by Client.

The Results relate only to the items tested.

Asst. Executive Engineer, Project Division, Yelahanka, BBMP, Bangalore

KHAN. R

For Newzen Consultants Bangalore

Proprietor

NEWZEN CONSULTANTS BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA, JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231,

NC/QC/PYZ/2017-18/A2-BC8 Date: 15-07-2017

1.TEST REPORT ON BITUMINOUS MIXES :

(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for BC mix sample.
{Project*: Improvements and Asphalting to roads at Agrahara Layout in Ward No 05.}

Ref.: Material testing/PMC/17-18,

Report Required for: Assistant Executive Engineer,
Yelahanka Project Division,
BBMP, Bangalore.

Name of the Contractor: Mr. Achutha Murthy. K, Bangalore.

TEST RESULTS

A. Type of Construction : **Bituminous Concrete**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **5.43 %**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-17 of MORTH Specfications-2013 BC (Grading - 2)
19.0	**100**	100
13.2	**95.10**	90-100
9.5	**83.25**	70-88
4.75	**69.55**	53-71
2.36	**51.75**	42-58
1.18	**42.45**	34-48
0.600	**32.60**	26-38
0.300	**23.40**	18-28
0.150	**15.20**	12-20
0.075	**7.10**	4-10

*As Furnished by Client.

The Results relate only to the items tested.

KHAN. R

For Newzen Consultants Bangalore

Proprietor

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